```
=> e bannan jason d/au
     1
E1             2     BANNAN J N/AU
E2             3     BANNAN JASON/AU
E3            15 --> BANNAN JASON D/AU
E4             1     BANNAN JASON DAVID/AU
E5             1     BANNAN JOHN A/AU
E6             2     BANNAN JOHN N/AU
E7             2     BANNAN L/AU
E8            68     BANNAN L T/AU
E9             2     BANNAN LIAM T/AU
E10            7     BANNAN M/AU
E11            5     BANNAN M W/AU
E12            1     BANNAN MARY/AU

=> s e2-e4

L14           19 ("BANNAN JASON"/AU OR "BANNAN JASON D"/AU OR "BANNAN JASON
DAVID
```

9/335581
1/01

Research com+interference results in Exs. Office @ 9/01

"/AU)

=> s l14 and toxic shock

L15 5 L14 AND TOXIC SHOCK

=> dup rem l15

PROCESSING COMPLETED FOR L15
L16 4 DUP REM L15 (1 DUPLICATE REMOVED)

=> d bib ab 1-4

L16 ANSWER 1 OF 4 USPATFULL
AN 2000:74383 USPATFULL
TI Peptides useful for reducing symptoms of **toxic shock** syndrome
IN **Bannan, Jason D.**, Thompson Station, TN, United States
Zabriskie, John B., New York, NY, United States
PA The Rockefeller University, New York, NY, United States (U.S. corporation)
PI US 6075119 20000613
AI US 1997-838413 19970407 (8)
DT Utility
EXNAM Primary Examiner: Minnifield, Nita
LREP Morgan & Finnegan, LLP
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1639
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to compositions and methods for eliciting an immunogenic response in mammals, including responses which provide protection against, or reduce the severity, of **toxic shock** from bacterial infections. More particularly it relates to peptides derived from homologous sequences of the family of staphylococcal and streptococcal toxins, which may be polymeric, and carrier-conjugates thereof, and their use to induce serum antibodies. The invention also relates to serum antibodies induced by the peptides and carrier-conjugates and their use to prevent, treat, or protect against the toxic effects of most, if not all, of the staphylococcal and streptococcal toxins.

The invention also relates to diagnostic assays and kits to detect the presence of staphylococcal and streptococcal toxins, or antibodies thereto. The invention also relates isolated and purified to nucleic acids encoding the peptides of the invention and transformed host cells containing those nucleic acids.

L16 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2001 ACS
AN 2000:241505 CAPLUS
DN 132:290233
TI Sequences of peptides derived from staphylococcal and streptococcal toxins, and applications thereof in diagnosing and treating **toxic shock** syndrome and septic shock
IN **Bannan, Jason D.**; Visvanathan, Kumar; Zabriskie, John B.
PA Rockefeller University, USA
SO PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI	WO 2000020598	A1	20000413	WO 1999-US22180	19990924

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-168303 19981007
US 1999-335581 19990618

OS MARPAT 132:290233

AB This invention relates to amino acid sequences of peptides useful for providing protection against, or reducing the severity of, **toxic shock** and septic shock resulting from bacterial infections. More particularly, the invention provides peptides derived from consensus sequences of the family of staphylococcal and streptococcal toxins, and may be polymeric and/or carrier-conjugates thereof. The invention also relates to serum antibodies induced by the peptides and/or carrier-conjugates and their use to prevent, treat, or protect against the toxic effects of most, if not all, of the staphylococcal and streptococcal toxins. Antibodies may be induced by administration of a pharmaceutical compn. and/or vaccine contg. a peptide of the invention. The invention also relates to diagnostic assays and kits to detect the presence of staphylococcal and streptococcal toxins, or antibodies thereto.

RE.CNT 5

RE

(1) Bannan, J; WO 9845325 A 1998 CAPLUS
(2) Bannan, J; INFECTIOUS DISEASE CLINICS OF NORTH AMERICA 1999, V13(2), P387 MEDLINE
(3) National Jewish Center For Immunology And Respiratory Medicine; WO 9636366 A 1996 CAPLUS
(4) Schlievert, P; WO 9640930 A 1996 CAPLUS
(5) Terman, D; WO 9110680 A 1991 CAPLUS

L16 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2001 ACS

AN 1998:682420 CAPLUS

DN 129:314963

TI Peptides useful for reducing symptoms of **toxic shock** syndrome

IN **Bannan, Jason D.**; Zabriskie, John B.

PA The Rockefeller University, USA

SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9845325	A1	19981015	WO 1998-US6663	19980401

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 6075119	A	20000613	US 1997-838413	19970407
AU 9869501	A1	19981030	AU 1998-69501	19980401
EP 973803	A1	20000126	EP 1998-915277	19980401

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
PRAI US 1997-838413 19970407
WO 1998-US6663 19980401
AB This invention relates to compns. and methods for eliciting an immunogenic response in mammals, including responses which provide protection against, or reduce the severity, of **toxic shock** from bacterial infections. Peptides derived from homologous sequences of the family of staphylococcal and streptococcal toxins are used to induce serum antibodies. These peptide-induced antibodies exhibited neutralizing activity for the toxins. In addn., the invention also relates to diagnostic assays and kits to detect the presence of antibodies to staphylococcal and streptococcal toxins. Isolated and purified nucleic acids encoding these immunogenic peptides are claimed.

L16 ANSWER 4 OF 4 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 1
AN 1995:22185 BIOSIS
DN PREV199598036485
TI Characterization and biological properties of a new staphylococcal exotoxin.
AU Ren, Keyong; **Bannan, Jason D.**; Pancholi, Vijaykumar; Cheung, Ambrose L.; Robbins, John C.; Fischetti, Vincent A.; Zabriskie, John B. (1)
CS (1) Lab. Bacterial Pathogenesis Immunol., The Rockefeller Univ., 1230 York Ave., New York, NY 10021 USA
SO Journal of Experimental Medicine, (1994) Vol. 180, No. 5, pp. 1675-1683. ISSN: 0022-1007.
DT Article
LA English
AB Staphylococcus aureus strain D4508 is a **toxic shock** syndrome toxin 1-negative clinical isolate from a nonmenstrual case of **toxic shock** syndrome (TSS). In the present study, we have purified and characterized a new exotoxin from the extracellular products of this strain. This toxin was found to have a molecular mass of 25.14 kD by mass spectrometry and an isoelectric point of 5.65 by isoelectric focusing. We have also cloned and sequenced its corresponding genomic determinant. The DNA sequence encoding the mature protein was found to be 654 base pairs and is predicted to encode a polypeptide of 218 amino acids. The deduced protein contains an NH-2-terminal sequence identical to that of the native protein. The calculated molecular weight (25.21 kD) of the recombinant mature protein is also consistent with that of the native molecules. When injected intravenously into rabbits, both the native and recombinant toxins induce an acute TSS-like illness characterized by high fever, hypotension, diarrhea, shock, and in some cases death, with classical histological findings of TSS Furthermore, the activity of the toxin is specifically enhanced by low quantities of endotoxins. The toxicity can be blocked by rabbit immunoglobulin G antibody specific for the toxin. Western blotting and DNA sequencing data confirm that the protein is a unique staphylococcal exotoxin. yet shares significant sequence homology with known staphylococcal enterotoxins, especially the SEA, SED, and SEE toxins. We conclude therefore that this 25-kD protein belongs to the staphylococcal enterotoxin gene family that is capable of inducing a TSS-like illness in rabbits.

=> e zabriskie john b/au

E1 2 ZABRISKIE J R/AU
E2 6 ZABRISKIE JOHN/AU
E3 73 --> ZABRISKIE JOHN B/AU
E4 1 ZABRISKIE JOHN E JR/AU

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E5            4     ZABRISKIE JOHN L JR/AU
E6            1     ZABRISKIE JOHN M/AU
E7            4     ZABRISKIE K A/AU
E8            1     ZABRISKIE K H/AU
E9            2     ZABRISKIE K H JR/AU
E10           1     ZABRISKIE K L/AU
E11           3     ZABRISKIE KENNETH A/AU
E12           1     ZABRISKIE KENNETH ANDREW/AU

=> s e1-e4

L17          82 ("ZABRISKIE J R"/AU OR "ZABRISKIE JOHN"/AU OR "ZABRISKIE JOHN
                B"/AU OR "ZABRISKIE JOHN E JR"/AU)

=> s l17 and toxic shock

L18           5 L17 AND TOXIC SHOCK

=> d bib ab 1-5


L18  ANSWER 1 OF 5  BIOSIS  COPYRIGHT 2001 BIOSIS
AN   1995:22185  BIOSIS
DN   PREV199598036485
TI   Characterization and biological properties of a new staphylococcal
     exotoxin.
AU   Ren, Keyong; Bannan, Jason D.; Pancholi, Vijaykumar; Cheung, Ambrose L.;
     Robbins, John C.; Fischetti, Vincent A.; Zabriskie, John B. (1)
CS   (1) Lab. Bacterial Pathogenesis Immunol., The Rockefeller Univ., 1230
York
     Ave., New York, NY 10021 USA
SO   Journal of Experimental Medicine, (1994) Vol. 180, No. 5, pp. 1675-1683.
     ISSN: 0022-1007.
DT   Article
LA   English
AB   Staphylococcus aureus strain D4508 is a toxic shock
     syndrome toxin 1-negative clinical isolate from a nonmenstrual case of
     toxic shock syndrome (TSS). In the present study, we
     have purified and characterized a new exotoxin from the extracellular
     products of this strain. This toxin was found to have a molecular mass of
     25.14 kD by mass spectrometry and an isoelectric point of 5.65 by
     isoelectric focusing. We have also cloned and sequenced its corresponding
     genomic determinant. The DNA sequence encoding the mature protein was
     found to be 654 base pairs and is predicted to encode a polypeptide of
218
     amino acids. The deduced protein contains an NH-2-terminal sequence
     identical to that of the native protein. The calculated molecular weight
     (25.21 kD) of the recombinant mature protein is also consistent with that
     of the native molecules. When injected intravenously into rabbits, both
     the native and recombinant toxins induce an acute TSS-like illness
     characterized by high fever, hypotension, diarrhea, shock, and in some
     cases death, with classical histological findings of TSS Furthermore, the
     activity of the toxin is specifically enhanced by low quantities of
     endotoxins. The toxicity can be blocked by rabbit immunoglobulin G
     antibody specific for the toxin. Western blotting and DNA sequencing data
     confirm that the protein is a unique staphylococcal exotoxin. yet shares
     significant sequence homology with known staphylococcal enterotoxins,
     especially the SEA, SED, and SEE toxins. We conclude therefore that this
     25-kD protein belongs to the staphylococcal enterotoxin gene family that
     is capable of inducing a TSS-like illness in rabbits.

L18  ANSWER 2 OF 5  USPATFULL
AN     2000:74383  USPATFULL
TI     Peptides useful for reducing symptoms of toxic shock
       syndrome
```

IN Bannan, Jason D., Thompson Station, TN, United States
Zabriskie, John B., New York, NY, United States
PA The Rockefeller University, New York, NY, United States (U.S. corporation)
PI US 6075119 20000613
AI US 1997-838413 19970407 (8)
DT Utility
EXNAM Primary Examiner: Minnifield, Nita
LREP Morgan & Finnegan, LLP
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1639
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to compositions and methods for eliciting an immunogenic response in mammals, including responses which provide protection against, or reduce the severity, of **toxic shock** from bacterial infections. More particularly it relates to peptides derived from homologous sequences of the family of staphylococcal and streptococcal toxins, which may be polymeric, and carrier-conjugates thereof, and their use to induce serum antibodies. The invention also relates to serum antibodies induced by the peptides and carrier-conjugates and their use to prevent, treat, or protect against the toxic effects of most, if not all, of the staphylococcal and
streptococcal toxins.

The invention also relates to diagnostic assays and kits to detect the presence of staphylococcal and streptococcal toxins, or antibodies thereto. The invention also relates isolated and purified to nucleic acids encoding the peptides of the invention and transformed host cells containing those nucleic acids.

L18 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2001 ACS
AN 2000:241505 CAPLUS
DN 132:290233
TI Sequences of peptides derived from staphylococcal and streptococcal toxins, and applications thereof in diagnosing and treating **toxic shock** syndrome and septic shock
IN Bannan, Jason D.; Visvanathan, Kumar; **Zabriskie, John B.**
PA Rockefeller University, USA
SO PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000020598	A1	20000413	WO 1999-US22180	19990924

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-168303 19981007
US 1999-335581 19990618
OS MARPAT 132:290233
AB This invention relates to amino acid sequences of peptides useful for providing protection against, or reducing the severity of, **toxic shock** and septic shock resulting from bacterial infections. More particularly, the invention provides peptides derived from consensus

sequences of the family of staphylococcal and streptococcal toxins, and may be polymeric and/or carrier-conjugates thereof. The invention also relates to serum antibodies induced by the peptides and/or carrier-conjugates and their use to prevent, treat, or protect against the toxic effects of most, if not all, of the staphylococcal and streptococcal toxins. Antibodies may be induced by administration of a pharmaceutical compn. and/or vaccine contg. a peptide of the invention. The invention also relates to diagnostic assays and kits to detect the presence of staphylococcal and streptococcal toxins, or antibodies thereto.

RE.CNT 5

RE

(1) Bannan, J; WO 9845325 A 1998 CAPLUS

(2) Bannan, J; INFECTIOUS DISEASE CLINICS OF NORTH AMERICA 1999, V13(2), P387 MEDLINE

(3) National Jewish Center For Immunology And Respiratory Medicine; WO 9636366 A 1996 CAPLUS

(4) Schlievert, P; WO 9640930 A 1996 CAPLUS

(5) Terman, D; WO 9110680 A 1991 CAPLUS

L18 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 1998:682420 CAPLUS

DN 129:314963

TI Peptides useful for reducing symptoms of **toxic shock** syndrome

IN Bannan, Jason D.; **Zabriskie, John B.**

PA The Rockefeller University, USA

SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9845325	A1	19981015	WO 1998-US6663	19980401
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6075119	A	20000613	US 1997-838413	19970407
AU 9869501	A1	19981030	AU 1998-69501	19980401
EP 973803	A1	20000126	EP 1998-915277	19980401
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRAI US 1997-838413 19970407
WO 1998-US6663 19980401

AB This invention relates to compns. and methods for eliciting an immunogenic response in mammals, including responses which provide protection against, or reduce the severity, of **toxic shock** from bacterial infections. Peptides derived from homologous sequences of the family of staphylococcal and streptococcal toxins are used to induce serum antibodies. These peptide-induced antibodies exhibited neutralizing activity for the toxins. In addn., the invention also relates to diagnostic assays and kits to detect the presence of antibodies to staphylococcal and streptococcal toxins. Isolated and purified nucleic acids encoding these immunogenic peptides are claimed.

L18 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2001 ACS

AN 1994:648359 CAPLUS
DN 121:248359
TI Characterization and biological properties of a new staphylococcal exotoxin
AU Ren, Keyong; Bannan, Jason D.; Pancholi, Vijaykumar; Cheung, Ambrose L.; Robbins, John C.; Fischetti, Vincent A.; **Zabriskie, John B.**
CS Lab. Bacterial Pathogenesis Immunol., Rockefeller Univ., New York, NY, 10021, USA
SO J. Exp. Med. (1994), 180(5), 1675-83
CODEN: JEMEAV; ISSN: 0022-1007
DT Journal
LA English
AB Staphylococcus aureus strain D4508 is a **toxic shock** syndrome toxin 1-neg. clin. isolate from a nonmenstrual case of **toxic shock** syndrome (TSS). In the present study, we have purified and characterized a new exotoxin from the extracellular products of this strain. This toxin was found to have a mol. mass of 25.14 kD by mass spectrometry and an isoelec. point of 5.65 by isoelec. focusing. We have also cloned and sequenced its corresponding genomic determinant. The DNA sequence encoding the mature protein was found to be 654 base pairs and is predicted to encode a polypeptide of 218 amino acids. The deduced protein contains an NH2-terminal sequence identical to that of the native protein. The calcd. mol. wt. (25.21 kD) of the recombinant mature protein is also consistent with that of the native mols. When injected i.v. into rabbits, both the native and recombinant toxins induce an acute TSS-like illness characterized by high fever, hypotension, diarrhea, shock, and in some cases death, with classical histol. findings of TSS. Furthermore, the activity of the toxin is specifically enhanced by low quantities of endotoxins. The toxicity can be blocked by rabbit IgG antibody specific for the toxin. Western blotting and DNA sequencing data confirm that the protein is a unique staphylococcal exotoxin, yet shares significant sequence homol. with known staphylococcal enterotoxins, esp. the SEA, SED, and SEE toxins. We conclude therefore that this 25-kD protein belongs to the staphylococcal enterotoxin gene family that is capable of inducing the TSS-like illness in rabbits.

=> s toxic shock syndrome

L19 8454 TOXIC SHOCK SYNDROME

=> s l19 and consensus (5a) peptide

L20 4 L19 AND CONSENSUS (5A) PEPTIDE

=> d bib ab 1-4

L20 ANSWER 1 OF 4 USPATFULL
AN 2000:74383 USPATFULL
TI Peptides useful for reducing symptoms of **toxic shock syndrome**
IN Bannan, Jason D., Thompson Station, TN, United States
Zabriskie, John B., New York, NY, United States
PA The Rockefeller University, New York, NY, United States (U.S. corporation)
PI US 6075119 20000613
AI US 1997-838413 19970407 (8)
DT Utility
EXNAM Primary Examiner: Minnifield, Nita
LREP Morgan & Finnegan, LLP

CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1639
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to compositions and methods for eliciting an immunogenic response in mammals, including responses which provide protection against, or reduce the severity, of toxic shock from bacterial infections. More particularly it relates to peptides derived from homologous sequences of the family of staphylococcal and streptococcal toxins, which may be polymeric, and carrier-conjugates thereof, and their use to induce serum antibodies. The invention also relates to serum antibodies induced by the peptides and carrier-conjugates and their use to prevent, treat, or protect against the toxic effects of most, if not all, of the staphylococcal and streptococcal toxins.

The invention also relates to diagnostic assays and kits to detect the presence of staphylococcal and streptococcal toxins, or antibodies thereto. The invention also relates isolated and purified to nucleic acids encoding the peptides of the invention and transformed host cells containing those nucleic acids.

L20 ANSWER 2 OF 4 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-303782 [26] WPIDS
DNN N2000-226933 DNC C2000-092301
TI Peptides useful for preventing and reducing the symptoms of **toxic shock syndrome** and septic shock from staphylococcal and streptococcal infections.
DC B04 D16 S03
IN BANNAN, J D; VISVANATHAN, K; ZABRISKIE, J B
PA (UYRQ) UNIV ROCKEFELLER
CYC 88
PI WO 2000020598 A1 20000413 (200026)* EN 115p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 9960597 A 20000426 (200036)
ADT WO 2000020598 A1 WO 1999-US22180 19990924; AU 9960597 A AU 1999-60597 19990924
FDT AU 9960597 A Based on WO 200020598
PRAI US 1999-335581 19990618; US 1998-168303 19981007
AB WO 200020598 A UPAB: 20000531
NOVELTY - A **peptide** P1 comprising a **consensus** amino acid sequence of (I) or (II) derived from two conserved regions of staphylococcal enterotoxins and streptococcal pyrogenic toxins, is new.
DETAILED DESCRIPTION - A **peptide** P1 comprising a **consensus** amino acid sequence of (I) or (II) derived from two conserved regions of staphylococcal enterotoxins and streptococcal pyrogenic toxins, is new.
X25X26YGGX1TX2X3X4X5N (I)
KX6X7X8X9X10X11X12X13DX14X15X16RX17X18X27X19X20X21X22X23X24Y (II)
X1, X8, X13 and X24 = L, I or V;
X2, X4, X5, X6, X7, X9, X10, X11, X12, X14, X15, X16, X17, X18, X19, X20, X21, X22 and X23 = any amino acid;
X3, X25 and X26 = any amino acid or 0; and
X3 = L or Y.
INDEPENDENT CLAIMS are also included for the following:
(1) a method of inducing serum antibodies that inhibit blastogenesis of human mononuclear cells in the presence of any one of the toxins SEA, SEB, SEC, SEE, (which are staphylococcal enterotoxins) SPEA or SPEC (which

are streptococcal pyrogenic exotoxins) comprising administering to a mammal in a carrier an antibody from a mammal immunized with P1;

(2) a method of passively immunizing a mammal against the toxic effects of staphylococcal and streptococcal toxins comprising administering in vivo an antibody containing composition where the antibody is derived from the immunization of antibody producing cells with P1;

(3) a nucleic acid encoding P1;

(4) a host cell containing the nucleic acid of (3);

(5) a method of inducing serum antibodies that bind staphylococcal enterotoxin or streptococcal exotoxin comprising administering to a mammal in a carrier a nucleic acid of (3) which produces enough of the encoded peptide to elicit the antibodies or by administering P1;

(6) an antibody prepared by the methods of (1) and (5);

(7) a method for detecting the presence of staphylococcal or streptococcal toxin in a sample comprising contacting the sample with an antibody of (6) and detecting the antibody bound to the toxin;

(8) a method for detecting the presence of antibodies to staphylococcal or streptococcal toxins in a sample comprising contacting the sample with P1 and detecting the peptide bound to the antibodies;

(9) a kit for detecting the presence of staphylococcal or streptococcal toxins in a sample comprising an antibody of (6);

(10) a kit for detecting the presence of antibodies to staphylococcal or streptococcal toxins in a sample comprising P1;

(11) a method of inhibiting blastogenesis of human mononuclear cells in the presence of any one of the toxins SEA, SEB, SEC, SEE, SPEA, SPEC, SPEG, SPEH or SPEZ comprising administering to a mammal in a carrier P1; and

(12) a method of protecting a mammal against the toxic effects of staphylococcal and streptococcal toxins comprising administering in vivo P1.

ACTIVITY - Antibacterial; immunosuppressive.

Human peripheral blood mononuclear cells (PBMC) were isolated via Ficoll-Hypaque solution. Nonpolymeric 6343 polypeptide, CMYGGVTEGEGN, (150 micro g) and 2x105 cells in 200 micro l of RPMI solution was plated in each well. The cells were incubated for 1 hour at 37 deg. C with mild agitation every 15 minutes. After 1 hour 2 micro g of either SEB, SEC, SED, SPEC, SPEA or TSST-1 (**toxic shock syndrome** toxin 1) superantigens was added to each well and the PBMCs incubated for 72 hours and the results measured using tritiated thymidine incorporation. The cells were collected and read on a beta counter. Peptide 6343 inhibited blastogenesis of PBMCs by all of the superantigens tested.

MECHANISM OF ACTION - Inhibitor of superantigen stimulation of T-cells.

USE - The peptides are used to prevent, treat or protect against toxic shock and septic shock from bacterial infections caused by staphylococcal and streptococcal pyrogenic toxins in mammals, particularly humans.

The peptides are used for inducing serum antibodies that bind at least one staphylococcal enterotoxin or streptococcal exotoxin and both the peptides and antibodies can be used in diagnostic assays to aid in the diagnosis of disease related to the presence of bacterial toxins.

The nucleic acids can be used for the production of the peptides for diagnostic reagents, as vaccines and for therapies for pyrogenic exotoxin related diseases. Vectors expressing high levels of the peptides can be used in immunotherapy and immunoprophylaxis when expressed in humans.

The antibodies are used for passive immunization therapy to prevent or increase resistance to **toxic shock syndrome**

or septic shock and to ameliorate the effects of diseases associated with the presence of staphylococcal or streptococcal pyrogenic toxins.

ADVANTAGE - The amino acid sequences of the peptides are sufficiently common that they can be used for eliciting antibodies which are cross reactive with toxins derived from various bacteria.

Dwg.0/11

L20 ANSWER 3 OF 4 BIOTECHDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-08528 BIOTECHDS
TI Peptides for preventing and reducing the symptoms of **toxic shock syndrome** and septic shock from staphylococcal and streptococcal infections;
vector-mediated enterotoxin and pyrogenic toxin gene transfer and expression in host cell and antibody
AU Bannan J D; Visvanthan K; Zabriskie J B
PA Univ.New-York-Rockefeller
LO New York, NY, USA.
PI WO 2000020598 13 Apr 2000
AI WO 1999-US22180 24 Sep 1999
PRAI US 19990335581 18 Jun 1999; US 1998-168303 7 Oct 1998
DT Patent
LA English
OS WPI: 2000-303782 [26]
AB A **peptide** containing a **consensus** protein sequence derived from 2 conserved regions of staphylococcal enterotoxins and streptococcal pyrogenic toxins is new. Also claimed are: a method of inducing serum antibodies that inhibit human mononuclear cells in the presence of any one of the toxins SEA, SEB, SEC or SEE (which are staphylococcal enterotoxins) SPEA or SPEC (which are streptococcal pyrogenic exotoxins); a method of passively immunizing a mammal against the toxic effects of staphylococcal and streptococcal toxins; a nucleic acid encoding the peptide; a host cell; an antibody; a method and kit for detecting the presence of staphylococcal or streptococcal toxin in a sample; a method and kit for detecting the presence of antibodies to staphylococcal; or streptococcal toxins; a method for inhibiting blastogenesis of human of human mononuclear cells in the presence of any one of the toxins; and a method of protecting a mammal against the toxic effects of staphylococcal toxins by administering in vivo peptide. The proteins, nucleic acids and antibodies can be used to protect against shock and septic shock from bacterial infection and for the diagnosis of infection. (115pp)

L20 ANSWER 4 OF 4 BIOTECHDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1999-00505 BIOTECHDS
TI New peptides that generate antibodies against staphylococcal and streptococcal toxins;
peptide consensus sequence used to generate antibody against staphylococcal and streptococcal toxin, for e.g. toxin detection
AU Bannan J D; Zabriskie J B
PA Univ.New-York-Rockefeller
LO New York, NY, USA.
PI WO 98450325 15 Oct 1998
AI WO 1998-US6663 1 Apr 1998
PRAI US 1997-838413 7 Apr 1997
DT Patent
LA English
OS WPI: 1998-568335 [48]
AB Peptides, with the given consensus sequences, either on their own, or forming part of a larger protein molecule, are claimed. Also claimed are nucleic acids encoding the proteins, host cells containing the nucleic

acids, and antibodies raised against the proteins. The peptides, and their nucleic acids, are used to generate serum antibodies that bind at least one staphylococcal enterotoxin or streptococcal endotoxin. The antibodies are used for diagnostic detection of these toxins in immunoassays. They can also be used to inhibit blastogenesis of human mononuclear cells in the presence of the toxins, and for passive immunization against the effects of the toxins. The antibodies raised from one of the peptide sequences also recognizes **toxic shock syndrome** toxin-1. The antibodies generated by the peptides are cross-reactive with toxins of a variety of bacteria. The peptides are based on conserved regions found in the bacterial toxins, and may be in the form of a monomer or a randomly crosslinked polymer, particularly where attached by C-terminal Cys residues, and optionally through a linker. The linker may also be immunogenic. Gene therapy is also disclosed. (69pp)

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=> d his

     (FILE 'HOME' ENTERED AT 07:52:38 ON 02 JAN 2001)

     FILE 'EMBASE, MEDLINE, BIOSIS, USPATFULL, JAPIO, WPIDS, BIOTECHDS,
     LIFESCI, CONFSCI, CAPLUS' ENTERED AT 07:54:06 ON 02 JAN 2001
L1          4205 S SURFACE LAYER PROTEIN OR S-LAYER
L2           499 S L1 AND EXPRESSION
L3           150 S L2 AND RECOMBIN?
L4            27 S L3 AND HETEROLOGOUS
L5            84 DUP REM L3 (66 DUPLICATES REMOVED)
L6            22 DUP REM L4 (5 DUPLICATES REMOVED)
                 E DEBLAERE ROLF Y/AU
L7            14 S E1-E3
L8             4 S L7 AND S-LAYER
                 E DESOMER JAN/AU
L9            44 S E2 OR E3
L10            5 S L9 AND S-LAYER
L11            3 DUP REM L10 (2 DUPLICATES REMOVED)
                 E DHAESE PATRICK/AU
L12           26 S E1-E3
L13            2 S L12 AND S-LAYER
                 E BANNAN JASON D/AU
L14           19 S E2-E4
L15            5 S L14 AND TOXIC SHOCK
L16            4 DUP REM L15 (1 DUPLICATE REMOVED)
                 E ZABRISKIE JOHN B/AU
L17           82 S E1-E4
L18            5 S L17 AND TOXIC SHOCK
L19         8454 S TOXIC SHOCK SYNDROME
L20            4 S L19 AND CONSENSUS (5A) PEPTIDE

=> s l19 and (endotoxin or enterotoxin)

L21         2273 L19 AND (ENDOTOXIN OR ENTEROTOXIN)

=> s l19 and (exotoxin or enterotoxin)

L22         2477 L19 AND (EXOTOXIN OR ENTEROTOXIN)

=> s l22 and peptid?

L23          237 L22 AND PEPTID?

=> dup rem l23

PROCESSING COMPLETED FOR L23
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L24 134 DUP REM L23 (103 DUPLICATES REMOVED)

=> s l24 and consensus

L25 21 L24 AND CONSENSUS

=> d bib ab 1-21

L25 ANSWER 1 OF 21 USPATFULL
AN 2000:131419 USPATFULL
TI Tumor killing effects of enterotoxins, superantigens, and related compounds
IN Terman, David S., Pebble Beach, CA, United States
Stone, Jay L., Aptos, CA, United States
PA Pharmacia AB, Stockholm, Sweden (non-U.S. corporation)
PI US 6126945 20001003
AI US 1994-252978 19940602 (8)
RLI Continuation of Ser. No. US 1992-891718, filed on 1 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. WO 1990-US9100342, filed on 17 Jan 1990 which is a continuation-in-part of Ser. No. US 1990-466577, filed on 17 Jan 1990, now abandoned which is a continuation-in-part of Ser. No. US 1989-416530, filed on 3 Oct 1989, now abandoned
DT Utility
EXNAM Primary Examiner: Bansal, Geetha P.
LREP Fulbright & Jawaorski L.L.P
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 2141
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Staphylococcal enterotoxins obtained by secretion from Staphylococcus aureus, by expression of enterotoxins in other bacteria or cells, or by chemical mutagenic treatment of Staphlococcus aureus strains are used in treatment of cancer as tumoricidal agents. Enterotoxins A, B, C, D, E and toxic shock toxin (TSST-1) can be administered via simple intravenous injection or in the form of adjuvants such as pluronic triblock copolymers. Enterotoxins may also be used ex-vivo to induce mitogenesis, enlarge and enrich a tumoricidal T-cell population. Streptococcus pyrogenic exotoxins which have structural and functional homology to the enterotoxins, are also useful in tumoricidal treatment. Chemically derivatized enterotoxins as well as synthetic or genetically prepared polypeptides having structural homology to the native enterotoxins are also useful in this application.

L25 ANSWER 2 OF 21 USPATFULL
AN 2000:95093 USPATFULL
TI Isolated **peptides** derived from the Epstein-Barr virus containing fusion inhibitory domains
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6093794 20000725
AI US 1995-471913 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
EXNAM Primary Examiner: Scheiner, Laurie; Assistant Examiner: Parkin, Jeffrey

S.
LREP Pennie & Edmonds LLP
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 52 Drawing Figure(s); 83 Drawing Page(s)
LN.CNT 19949
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to **peptides** which exhibit potent anti-retroviral activity. The **peptides** of the invention comprise DP178 (SEQ ID:1) **peptide** corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such **peptides** as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

L25 ANSWER 3 OF 21 USPATFULL
AN 2000:80415 USPATFULL
TI Diagnostic assays for MIF
IN Bucala, Richard J., New York, NY, United States
Mitchell, Robert A., New York, NY, United States
Bernhagen, Jurgen, New York, NY, United States
Calandra, Thierry F., New York, NY, United States
Cerami, Anthony, Shelter Island, NY, United States
PA The Picower Institute for Medical Research, Manhasset, NY, United States
(U.S. corporation)
PI US 6080407 20000627
AI US 1995-471586 19950606 (8)
RLI Division of Ser. No. US 1995-462350, filed on 5 Jun 1995, now abandoned which is a continuation-in-part of Ser. No. US 1994-243342, filed on 16 May 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-63399, filed on 17 May 1993, now abandoned
DT Utility
EXNAM Primary Examiner: Chan, Christina Y.; Assistant Examiner: Nolan, Patrick
LREP Oster, Jeffrey B.
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN 26 Drawing Figure(s); 22 Drawing Page(s)
LN.CNT 3585
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to compositions and methods for inhibiting the release and/or biological activity of migration inhibitory factor (MIF). In particular, the invention relates to the uses of such compositions and methods for the treatment of various conditions involving cytokine-mediated toxicity, which include, but are not limited to shock, inflammation, graft versus host disease, and/or autoimmune diseases.

L25 ANSWER 4 OF 21 USPATFULL
AN 2000:74383 USPATFULL
TI **Peptides** useful for reducing symptoms of **toxic shock syndrome**
IN Bannan, Jason D., Thompson Station, TN, United States
Zabriskie, John B., New York, NY, United States
PA The Rockefeller University, New York, NY, United States (U.S. corporation)
PI US 6075119 20000613
AI US 1997-838413 19970407 (8)
DT Utility
EXNAM Primary Examiner: Minnifield, Nita
LREP Morgan & Finnegan, LLP

CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1639
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to compositions and methods for eliciting an immunogenic response in mammals, including responses which provide protection against, or reduce the severity, of toxic shock from bacterial infections. More particularly it relates to **peptides** derived from homologous sequences of the family of staphylococcal and streptococcal toxins, which may be polymeric, and carrier-conjugates thereof, and their use to induce serum antibodies. The invention also relates to serum antibodies induced by the **peptides** and carrier-conjugates and their use to prevent, treat, or protect against the toxic effects of most, if not all, of the staphylococcal and streptococcal toxins.

The invention also relates to diagnostic assays and kits to detect the presence of staphylococcal and streptococcal toxins, or antibodies thereto. The invention also relates isolated and purified to nucleic acids encoding the **peptides** of the invention and transformed host cells containing those nucleic acids.

L25 ANSWER 5 OF 21 USPATFULL
AN 2000:67564 USPATFULL
TI Methods for inhibition of membrane fusion-associated events, including influenza virus
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6068973 20000530
AI US 1995-485551 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
EXNAM Primary Examiner: Park, Hankyel
LREP Pennie & Edmonds LLP
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 52 Drawing Figure(s); 83 Drawing Page(s)
LN.CNT 12021
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to **peptides** which exhibit potent anti-retroviral activity. The **peptides** of the invention comprise DP178 (SEQ ID:1) **peptide** corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such **peptides** as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

L25 ANSWER 6 OF 21 USPATFULL
AN 2000:57361 USPATFULL
TI Compositions for inhibition of membrane fusion-associated events, including influenza virus transmission
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
Duke University, Durham, NC, United States (U.S. corporation)
PI US 6060065 20000509

AI US 1995-475668 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
EXNAM Primary Examiner: Achutamurthy, Ponnathapura; Assistant Examiner: Parley, Hankyel T.
LREP Pennie & Edmonds, LLP
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 84 Drawing Figure(s); 83 Drawing Page(s)
LN.CNT 19987
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to viral **peptides** referred to as "DP107- and DP178-like" **peptides**. Specifically, the invention relates to isolated influenza A DP107- and DP178-like **peptides** which are identified by sequence search motif algorithms. The **peptides** of the invention exhibit antiviral activity believed to result from inhibition of viral induced fusogenic events.

L25 ANSWER 7 OF 21 USPATFULL
AN 2000:50515 USPATFULL
TI Screening assays for compounds that inhibit membrane fusion-associated events
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Jr., Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6054265 20000425
AI US 1997-919597 19970926 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
EXNAM Primary Examiner: Stucker, Jeffrey
LREP Pennie & Edmonds, LLP
CLMN Number of Claims: 1
ECL Exemplary Claim: 1
DRWN 83 Drawing Figure(s); 83 Drawing Page(s)
LN.CNT 21307
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to **peptides** which exhibit potent anti-retroviral activity. The **peptides** of the invention comprise DP178 (SEQ ID:1) **peptide** corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such **peptides** as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

L25 ANSWER 8 OF 21 USPATFULL
AN 2000:24289 USPATFULL
TI Combination method for treating diseases caused by cytokine-mediated toxicity
IN Bucala, Richard J., New York, NY, United States
Mitchell, Robert A., New York, NY, United States
Bernhagen, Jurgen, New York, NY, United States
Calandra, Thierry F., New York, NY, United States
Cerami, Anthony, Shelter Island, NY, United States
PA The Picower Institute for Medical Research, Manhasset, NY, United States

(U.S. corporation)
PI US 6030615 20000229
AI US 1995-471546 19950606 (8)
RLI Division of Ser. No. US 1995-462350, filed on 5 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-243342, filed on 16 May 1994 which is a continuation-in-part of Ser. No. US 1993-63399, filed on 17 May 1993, now abandoned
DT Utility
EXNAM Primary Examiner: Hutzell, Paula K.; Assistant Examiner: Bansal, Geetha P.
LREP Tremaine, Davis Wright
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 28 Drawing Figure(s); 22 Drawing Page(s)
LN.CNT 3534
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB There is disclosed a method for treating an individual having a disease caused by cytokine-mediated toxicity comprising administering to the individual an effective amount of (a) an antibody that binds to an MIF polypeptide, wherein the MIF polypeptide has a molecular weight of about 12.5 kDa in combination with (b) anti-TNF.alpha., anti-IL1, anti-IFN-.gamma., IL-1RA, a steroid, a glucocorticoid, or IL-10.

L25 ANSWER 9 OF 21 USPATFULL
AN 2000:12922 USPATFULL
TI Isolated **peptides** derived from human immunodeficiency virus types 1 and 2 containing fusion inhibitory domains
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6020459 20000201
AI US 1995-484223 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 which is a continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
EXNAM Primary Examiner: Scheiner, Laurie; Assistant Examiner: Parkin, Jeffrey S.
LREP Pennie & Edmonds LLP
CLMN Number of Claims: 75
ECL Exemplary Claim: 1
DRWN 52 Drawing Figure(s); 83 Drawing Page(s)
LN.CNT 20335
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to **peptides** which exhibit potent anti-retroviral activity. The **peptides** of the invention comprise DP178 (SEQ ID:1) **peptide** corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such **peptides** as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

L25 ANSWER 10 OF 21 USPATFULL
AN 2000:9527 USPATFULL
TI Simian immunodeficiency virus **peptides** with antifusogenic and antiviral activities
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
Langlois, Alphonse J., Durham, NC, United States

PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6017536 20000125
AI US 1994-360107 19941220 (8)
RLI Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 which is a continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
EXNAM Primary Examiner: Scheiner, Laurie; Assistant Examiner: Parkin, Jeffrey S.
LREP Pennie & Edmonds LLP
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 50 Drawing Figure(s); 62 Drawing Page(s)
LN.CNT 20227
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to **peptides** which exhibit antifusogenic and antiviral activities. The **peptides** of the invention consist of a 16 to 39 amino acid region of a simian immunodeficiency virus (SIV) protein. These regions were identified through computer algorithms capable of recognizing the ALLMOTI5, 107.times.178.times.4, or PLZIP amino acid motifs. These motifs are associated with the antifusogenic and antiviral activities of the claimed **peptides**.

L25 ANSWER 11 OF 21 USPATFULL
AN 2000:7385 USPATFULL
TI Soluble divalent and multivalent heterodimeric analogs of proteins
IN Schneck, Jonathan, Silver Spring, MD, United States
O'Herrin, Sean, Baltimore, MD, United States
PA The Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)
PI US 6015884 20000118
AI US 1997-828712 19970328 (8)
PRAI US 1996-14367 19960328 (60)
DT Utility
EXNAM Primary Examiner: Hutzell, Paula K.; Assistant Examiner: Bansal, Geetha P.
LREP Banner & Witcoff, Ltd.
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 18 Drawing Figure(s); 16 Drawing Page(s)
LN.CNT 2027
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Specificity in immune responses is in part controlled by the selective interaction of T cell receptors with their cognate ligands, **peptide**/MHC molecules. The discriminating nature of this interaction makes these molecules, in soluble form, good candidates for selectively regulating immune responses. Attempts to exploit soluble analogs of these proteins has been hampered by the intrinsic low avidity of these molecules for their ligands. To increase the avidity of soluble analogs for their cognates to biologically relevant levels, divalent **peptide**/MHC complexes or T cell receptors (superdimers) were constructed. Using a recombinant DNA strategy, DNA encoding either the MHC class II/**peptide** or TCR heterodimers was ligated to DNA coding for murine Ig heavy and light chains. These constructs were subsequently expressed in a baculovirus expression system. Enzyme-linked immunosorbant assays (ELISA) specific for the Ig and polymorphic determinants of either the TCR or MHC fraction of the molecule indicated that infected insect cells secreted approximately 1 .mu.g/ml of soluble, conformationally intact chimeric superdimers. SDS PAGE gel analysis of

purified protein showed that expected molecular weight species. The results of flow cytometry demonstrated that the TCR and class II chimeras bound specifically with high avidity to cells bearing their cognate receptors. These superdimers will be useful for studying TCR/MHC interactions, lymphocyte tracking, identifying new antigens, and have possible uses as specific regulators of immune responses.

L25 ANSWER 12 OF 21 USPATFULL
AN 2000:4427 USPATFULL
TI Measles virus **peptides** with antifusogenic and antiviral activities
IN Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PA Trimeris, Inc., Durham, NC, United States (U.S. corporation)
PI US 6013263 20000111
AI US 1995-486099 19950607 (8)
RLI Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 Ser. No. Ser. No. US 1994-255208, filed on 7 Jun 1994 And Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DT Utility
EXNAM Primary Examiner: Scheiner, Laurie; Assistant Examiner: Parkin, Jeffrey S.
LREP Pennie & Edmonds LLP
CLMN Number of Claims: 38
ECL Exemplary Claim: 1
DRWN 52 Drawing Figure(s); 83 Drawing Page(s)
LN.CNT 19827
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to **peptides** which exhibit potent anti-retroviral activity. The **peptides** of the invention comprise DP178 (SEQ ID:1) **peptide** corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such **peptides** as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

L25 ANSWER 13 OF 21 USPATFULL
AN 1998:143700 USPATFULL
TI Use of interleukin-10 analogs for antagonists to treat endotoxin- or superantigen-induced toxicity
IN De Waal Malefyt, Rene, Sunnyvale, CA, United States
Howard, Maureen, Los Altos Hills, CA, United States
Hsu, Di-Hwei, Sunnyvale, CA, United States
Ishida, Hiroshi, Kyoto, Japan
O'Garra, Anne, Palo Alto, CA, United States
Spits, Hergen, Badhoevedorp, Netherlands
Zlotnik, Albert, Palo Alto, CA, United States
PA Schering Corporation, Kenilworth, NJ, United States (U.S. corporation)
PI US 5837293 19981117
AI US 1995-481560 19950607 (8)
RLI Division of Ser. No. US 1995-410654, filed on 24 Mar 1995 which is a continuation-in-part of Ser. No. US 1994-229854, filed on 19 Apr 1994, now abandoned which is a continuation-in-part of Ser. No. US 1992-926853, filed on 6 Aug 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-742129, filed on 6 Aug 1991, now abandoned
DT Utility
EXNAM Primary Examiner: Draper, Garnette D.
LREP Foulke, Cynthia L.; Dulak, Norman C.; Ching, Edwin P.
CLMN Number of Claims: 18
ECL Exemplary Claim: 1

DRWN 113 Drawing Figure(s); 59 Drawing Page(s)
LN.CNT 4578
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method is provided for reducing an inflammatory response in a mammal comprising administering to a mammal at risk of developing or afflicted with an inflammatory response characterized by substantially elevated levels of IL-1.alpha., IL-1.beta., IL-6, IL-8 and TNF.alpha., an amount of IL-10 effective to substantially lower the levels of such cytokines.

L25 ANSWER 14 OF 21 USPATFULL
AN 1998:143643 USPATFULL
TI Use of an interleukin-10 antagonist to treat a B cell mediated autoimmune disorder
IN De Waal Malefyt, Rene, Sunnyvale, CA, United States
Howard, Maureen, Los Altos Hills, CA, United States
Hsu, Di-Hwei, Sunnyvale, CA, United States
Ishida, Hiroshi, Kyoto, Japan
O'Garra, Anne, Palo Alto, CA, United States
Spits, Hergen, Badhoevedorp, Netherlands
Zlotnik, Albert, Palo Alto, CA, United States
PA Schering Corporation, Kenilworth, NJ, United States (U.S. corporation)
PI US 5837232 19981117
AI US 1995-474851 19950607 (8)
RLI Division of Ser. No. US 1995-410640, filed on 24 Mar 1995 which is a continuation of Ser. No. US 1994-229854, filed on 19 Apr 1994 which is a
continuation of Ser. No. US 1992-926853, filed on 6 Aug 1992 which is a continuation of Ser. No. US 1991-742129, filed on 6 Aug 1991, now abandoned
DT Utility
EXNAM Primary Examiner: Draper, Garnette D.
LREP Foulke, Cynthia L.; Dulak, Norman C.; Ching, Edwin P.
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN 113 Drawing Figure(s); 59 Drawing Page(s)
LN.CNT 4290
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method is provided for toting a B cell mediated autoimmune disorder comprising administering an effective amount of an interleukin-10 antagonist.

L25 ANSWER 15 OF 21 USPATFULL
AN 1998:139020 USPATFULL
TI Chimeric viral receptor polypeptides
IN Meruelo, Daniel, Scarborough, NY, United States
Yoshimoto, Takayuki, Tokyo, Japan
PA New York University, New York, NY, United States (U.S. corporation)
PI US 5834589 19981110
AI US 1993-132990 19931007 (8)
RLI Continuation-in-part of Ser. No. US 1993-84729, filed on 29 Jun 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-899075, filed on 11 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-806178, filed on 13 Dec 1991, now abandoned which is a continuation-in-part of Ser. No. US 1990-627950, filed on 14 Dec 1990, now abandoned
DT Utility
EXNAM Primary Examiner: Ziska, Suzanne E.
LREP Pennie & Edmonds LLP
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 17 Drawing Figure(s); 17 Drawing Page(s)
LN.CNT 3845
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Target cell specificity of delivery vectors is provided by incorporation

of a target cell specific binding domain by the use of any binding domain, which binds specifically to a binding site on the target cell. The binding site may be endogenous to the target cell, provided by engineering the target cell, or a suitable binding site may be associated with the target cell. Target cells may also be associated with a CVR polypeptide to provide specificity for the delivery vector. The association of the CVR polypeptide confers target cell specificity for a second virus host cell range, which specificity differs from the viral host cell range of the endogenous target cell or animal host cell viral receptors. The CVR polypeptide may thus comprise a chimeric virus binding site which binds a second virus env binding domain specific for a second virus host cell range, selected from at least one of the group consisting of amphotropic, polytropic, xenotropic, ecotropic and tissue specific.

L25 ANSWER 16 OF 21 USPATFULL
AN 1998:138428 USPATFULL
TI Use of interleukin-10 (IL-10) to treat endotoxin- or superantigen-induced toxicity
IN Malefyt, Rene de Waal, Mountain View, CA, United States
Howard, Maureen, Los Altos Hills, CA, United States
Hsu, Di-Hwei, Palo Alto, CA, United States
Ishida, Hiroshi, Wakayama, Japan
O'Garra, Anne, Pala Alto, CA, United States
Spits, Hergen, Los Altos, CA, United States
Zlotnik, Albert, Palo Alto, CA, United States
PA Schering Corporation, Kenilworth, NJ, United States (U.S. corporation)
PI US 5833976 19981110
AI US 1995-410654 19950324 (8)
RLI Continuation of Ser. No. US 1994-229854, filed on 19 Apr 1994, now abandoned which is a continuation of Ser. No. US 1992-926853, filed on 6 Aug 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-742129, filed on 6 Aug 1991, now abandoned
DT Utility
EXNAM Primary Examiner: Draper, Garnette D.
LREP Foulke, Cynthia L.; Dulak, Norman C.; Ching, Edwin P.
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 113 Drawing Figure(s); 59 Drawing Page(s)
LN.CNT 4218
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method is provided for treating septic shock or toxic shock that comprises administering an effective amount of interleukin-10.

L25 ANSWER 17 OF 21 USPATFULL
AN 1998:27773 USPATFULL
TI Method of cancer treatment
IN Terman, David S., P.O. Box 987, Pebble Beach, CA, United States 93953
PI US 5728388 19980317
AI US 1994-189424 19940131 (8)
RLI Continuation-in-part of Ser. No. US 1993-25144, filed on 2 Mar 1993, now abandoned And Ser. No. US 1992-891718, filed on 1 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1990-466577, filed on 17 Jan 1990, now abandoned which is a continuation-in-part of Ser. No. US 1989-416530, filed on 3 Oct 1989, now abandoned
DT Utility
EXNAM Primary Examiner: Schwartz, Richard A.; Assistant Examiner: Cech, Emma
LREP Skjerven, Morrill, MacPherson, Franklin & Friel LLP; Terlizzi, Laura; Haliday, Emily M.
CLMN Number of Claims: 32
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1515

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Treatment of solid tumors, including their metastases, without radiation, surgery or standard chemotherapeutic agents is described. Ex vivo stimulation of cells, selection of specific V.beta. subsets of stimulated cells and reinfusion of the V.beta. subsets of stimulated cells is employed for cancer therapy.

L25 ANSWER 18 OF 21 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-303782 [26] WPIDS
DNN N2000-226933 DNC C2000-092301
TI **Peptides** useful for preventing and reducing the symptoms of **toxic shock syndrome** and septic shock from staphylococcal and streptococcal infections.
DC B04 D16 S03
IN BANNAN, J D; VISVANATHAN, K; ZABRISKIE, J B
PA (UYRQ) UNIV ROCKEFELLER
CYC 88
PI WO 2000020598 A1 20000413 (200026)* EN 115p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 9960597 A 20000426 (200036)
ADT WO 2000020598 A1 WO 1999-US22180 19990924; AU 9960597 A AU 1999-60597 19990924
FDT AU 9960597 A Based on WO 200020598
PRAI US 1999-335581 19990618; US 1998-168303 19981007
AB WO 200020598 A UPAB: 20000531
NOVELTY - A **peptide** P1 comprising a **consensus** amino acid sequence of (I) or (II) derived from two conserved regions of staphylococcal enterotoxins and streptococcal pyrogenic toxins, is new.

DETAILED DESCRIPTION - A **peptide** P1 comprising a **consensus** amino acid sequence of (I) or (II) derived from two conserved regions of staphylococcal enterotoxins and streptococcal pyrogenic toxins, is new.

X25X26YGGX1TX2X3X4X5N (I)

KX6X7X8X9X10X11X12X13DX14X15X16RX17X18X27X19X20X21X22X23X24Y (II)

X1, X8, X13 and X24 = L, I or V;

X2, X4, X5, X6, X7, X9, X10, X11, X12, X14, X15, X16, X17, X18, X19, X20, X21, X22 and X23 = any amino acid;

X3, X25 and X26 = any amino acid or 0; and

X3 = L or Y.

INDEPENDENT CLAIMS are also included for the following:

(1) a method of inducing serum antibodies that inhibit blastogenesis of human mononuclear cells in the presence of any one of the toxins SEA, SEB, SEC, SEE, (which are staphylococcal enterotoxins) SPEA or SPEC (which are streptococcal pyrogenic exotoxins) comprising administering to a mammal in a carrier an antibody from a mammal immunized with P1;

(2) a method of passively immunizing a mammal against the toxic effects of staphylococcal and streptococcal toxins comprising administering in vivo an antibody containing composition where the antibody is derived from the immunization of antibody producing cells with P1;

(3) a nucleic acid encoding P1;

(4) a host cell containing the nucleic acid of (3);

(5) a method of inducing serum antibodies that bind staphylococcal **enterotoxin** or streptococcal **exotoxin** comprising administering to a mammal in a carrier a nucleic acid of (3) which produces enough of the encoded **peptide** to elicit the antibodies or by administering P1;

(6) an antibody prepared by the methods of (1) and (5);

(7) a method for detecting the presence of staphylococcal or streptococcal toxin in a sample comprising contacting the sample with an antibody of (6) and detecting the antibody bound to the toxin;

(8) a method for detecting the presence of antibodies to staphylococcal or streptococcal toxins in a sample comprising contacting the sample with P1 and detecting the **peptide** bound to the antibodies;

(9) a kit for detecting the presence of staphylococcal or streptococcal toxins in a sample comprising an antibody of (6);

(10) a kit for detecting the presence of antibodies to staphylococcal or streptococcal toxins in a sample comprising P1;

(11) a method of inhibiting blastogenesis of human mononuclear cells in the presence of any one of the toxins SEA, SEB, SEC, SEE, SPEA, SPEC, SPEG, SPEH or SPEZ comprising administering to a mammal in a carrier P1; and

(12) a method of protecting a mammal against the toxic effects of staphylococcal and streptococcal toxins comprising administering in vivo P1.

ACTIVITY - Antibacterial; immunosuppressive.

Human peripheral blood mononuclear cells (PBMC) were isolated via Ficoll-Hypaque solution. Nonpolymeric 6343 polypeptide, CMYGGVTEGEGN, (150 micro g) and 2x105 cells in 200 micro l of RPMI solution was plated in each well. The cells were incubated for 1 hour at 37 deg. C with mild agitation every 15 minutes. After 1 hour 2 micro g of either SEB, SEC, SED, SPEC, SPEA or TSST-1 (**toxic shock syndrome** toxin 1) superantigens was added to each well and the PBMCs incubated for 72 hours and the results measured using tritiated thymidine incorporation. The cells were collected and read on a beta counter. **Peptide** 6343 inhibited blastogenesis of PBMCs by all of the superantigens tested.

MECHANISM OF ACTION - Inhibitor of superantigen stimulation of T-cells.

USE - The **peptides** are used to prevent, treat or protect against toxic shock and septic shock from bacterial infections caused by staphylococcal and streptococcal pyrogenic toxins in mammals, particularly humans.

The **peptides** are used for inducing serum antibodies that bind at least one staphylococcal **enterotoxin** or streptococcal **exotoxin** and both the **peptides** and antibodies can be used in diagnostic assays to aid in the diagnosis of disease related to the presence of bacterial toxins.

The nucleic acids can be used for the production of the **peptides** for diagnostic reagents, as vaccines and for therapies for pyrogenic **exotoxin** related diseases. Vectors expressing high levels of the **peptides** can be used in immunotherapy and immunoprophylaxis when expressed in humans.

The antibodies are used for passive immunization therapy to prevent or increase resistance to **toxic shock syndrome** or septic shock and to ameliorate the effects of diseases associated with the presence of staphylococcal or streptococcal pyrogenic toxins.

ADVANTAGE - The amino acid sequences of the **peptides** are sufficiently common that they can be used for eliciting antibodies which are cross reactive with toxins derived from various bacteria.

Dwg.0/11

L25 ANSWER 19 OF 21 BIOTECHDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-08528 BIOTECHDS
TI **Peptides** for preventing and reducing the symptoms of **toxic shock syndrome** and septic shock from staphylococcal and streptococcal infections; vector-mediated **enterotoxin** and pyrogenic toxin gene transfer and expression in host cell and antibody

AU Bannan J D; Visvanthan K; Zabriskie J B
PA Univ.New-York-Rockefeller
LO New York, NY, USA.
PI WO 2000020598 13 Apr 2000
AI WO 1999-US22180 24 Sep 1999
PRAI US 19990335581 18 Jun 1999; US 1998-168303 7 Oct 1998
DT Patent
LA English
OS WPI: 2000-303782 [26]
AB A **peptide** containing a **consensus** protein sequence derived from 2 conserved regions of staphylococcal enterotoxins and streptococcal pyrogenic toxins is new. Also claimed are: a method of inducing serum antibodies that inhibit human mononuclear cells in the presence of any one of the toxins SEA, SEB, SEC or SEE (which are staphylococcal enterotoxins) SPEA or SPEC (which are streptococcal pyrogenic exotoxins); a method of passively immunizing a mammal against the toxic effects of staphylococcal and streptococcal toxins; a nucleic acid encoding the **peptide**; a host cell; an antibody; a method and kit for detecting the presence of staphylococcal or streptococcal toxin in a sample; a method and kit for detecting the presence of antibodies to staphylococcal; or streptococcal toxins; a method for inhibiting blastogenesis of human of human mononuclear cells in the presence of any one of the toxins; and a method of protecting a mammal against the toxic effects of staphylococcal toxins by administering in vivo **peptide**. The proteins, nucleic acids and antibodies can be used to protect against shock and septic shock from bacterial infection and for the diagnosis of infection. (115pp)

L25 ANSWER 20 OF 21 BIOTECHDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1999-00505 BIOTECHDS
TI New **peptides** that generate antibodies against staphylococcal and streptococcal toxins;
peptide consensus sequence used to generate antibody against staphylococcal and streptococcal toxin, for e.g. toxin detection
AU Bannan J D; Zabriskie J B
PA Univ.New-York-Rockefeller
LO New York, NY, USA.
PI WO 98450325 15 Oct 1998
AI WO 1998-US6663 1 Apr 1998
PRAI US 1997-838413 7 Apr 1997
DT Patent
LA English
OS WPI: 1998-568335 [48]
AB **Peptides**, with the given **consensus** sequences, either on their own, or forming part of a larger protein molecule, are claimed. Also claimed are nucleic acids encoding the proteins, host cells containing the nucleic acids, and antibodies raised against the proteins.
The **peptides**, and their nucleic acids, are used to generate serum antibodies that bind at least one staphylococcal **enterotoxin** or streptococcal endotoxin. The antibodies are used for diagnostic detection of these toxins in immunoassays. They can also be used to inhibit blastogenesis of human mononuclear cells in the presence of the toxins, and for passive immunization against the effects of the toxins. The antibodies raised from one of the **peptide** sequences also recognizes **toxic shock syndrome** toxin-1. The antibodies generated by the **peptides** are cross-reactive with toxins of a variety of bacteria. The **peptides** are based on conserved regions found in the bacterial toxins, and may be in the form of a monomer or a randomly crosslinked polymer, particularly where attached by C-terminal Cys residues, and optionally through a linker. The linker may also be immunogenic. Gene therapy is also disclosed. (69pp)

L25 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2001 ACS
AN 2000:519966 CAPLUS
DN 133:359717
TI Identification of a novel gene cluster encoding staphylococcal **exotoxin**-like proteins: characterization of the prototypic gene and its protein product, SET1
AU Williams, Rachel J.; Ward, John M.; Henderson, Brian; Poole, Stephen; O'Hara, Bernard P.; Wilson, Michael; Nair, Sean P.
CS Cellular Microbiology Research Group, Division of Surgical Sciences, University College London, London, WC1X 8LD, UK
SO Infect. Immun. (2000), 68(8), 4407-4415
CODEN: INFIBR; ISSN: 0019-9567
PB American Society for Microbiology
DT Journal
LA English
AB We report the discovery of a novel genetic locus within Staphylococcus aureus that encodes a cluster of at least five **exotoxin**-like proteins. Designated the staphylococcal **exotoxin**-like genes 1 to 5 (set1 to set5), these open reading frames have between 38 and 53% homol. to each other. All five proteins contain **consensus** sequences that are found in staphylococcal and streptococcal exotoxins and **toxic shock syndrome** toxin 1 (TSST-1). However, the SETs have only limited overall sequence homol. to the enterotoxins and TSST-1 and thus represent a novel family of **exotoxin**-like proteins. The prototypic gene in this cluster, set1, has been cloned and expressed. Recombinant SET1 stimulated the prodn. of interleukin-1.beta., interleukin-6, and tumor necrosis factor alpha by human peripheral blood mononuclear cells. PCR anal. revealed that set1 was distributed among other strains of S. aureus but not in the other staphylococcal species examd. Sequence anal. of the set1 genes from different strains revealed at least three allelic variants. The protein products of these allelic variants displayed a 100-fold difference in their cytokine-inducing potency. The distribution of allelic variants of the set genes among strains of S. aureus may contribute to differences in the pathogenic potential of this bacterium.
RE.CNT 38
RE
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(4) Bohach, G; Adv Exp Med Biol 1996, V391, P131 CAPLUS
(5) Bohach, G; Crit Rev Microbiol 1990, V17, P251 CAPLUS
(7) Fast, D; Infect Immun 1989, V57, P291 CAPLUS
(9) Hackett, S; J Infect Dis 1992, V165, P879 CAPLUS
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